

EDUCATION TRANSFORMATION, ASSESSMENT AND *UBUNTU* IN SOUTH AFRICA

Peter Beets & Trevor van Louw

Introduction

Education in South Africa is faced with several challenges in an era of political and social transformation following the first democratic elections in 1994. A plethora of education policies has been developed in recent times with a view to changing education practices and equipping learners to take on the role of critical citizens in changing global and national environments. In line with international trends, assessment policies have been developed in South Africa mandating the implementation of more authentic practices. Many of the ideas regarding assessment theory and practice (including more authentic ones) have largely been framed within a Western paradigm that disregards the value that the notion of *ubuntu* can add in making the process of assessment sensitive to the needs of learners and teachers located within an African context.

It is not our intention to argue that Western ways of assessment are inadequate unless informed by *ubuntu* principles, but rather that these principles that guide African ways of thinking can be invaluable in making the assessment process more accessible to people operating in an African context. This can enhance the process of rolling back the alienation that is so prevalent when learners and teachers are submerged in ways of thinking that have not developed within their context.

In this essay we wish to explore points of resonance between OBE assessment as expounded by Spady (1994) and Killen (2004) and the African notion of *ubuntu*. We further want to argue that the transformation envisaged in South Africa will be best served where *ubuntu* principles support the process of assessment. In so doing we divide the essay into three sections. Firstly, we provide a historical background of South African education to highlight key influences on education prior to 1994. Secondly, we discuss education transformation in South Africa to illuminate some of the shifts and challenges the system is currently facing. Finally, we discuss the possible

relationship between assessment and *ubuntu*, proposing assessment practices that give primacy to humanness and adopt a more holistic view of learners instead of reducing their abilities to quantitative indices.

Historical background

With the colonial legacy so deeply entrenched in South African society, transforming education is one of the greatest challenges that education faces. It is with reference to this challenge that Meerkotter and Da Costa (1994: 24) correctly state that transforming education has no meaning if it merely denotes the redecoration of what is essentially Euro-American-centred education. Furthermore, it also has no value if it is not inspired by the belief that the past of all peoples is meaningful and that what is called modern civilization today is the combined product of the substantial cultural contributions made by all peoples in the universal past, including the people of Africa.

With the deliberate silencing of the voices of the majority of the South African population through a process of cultural substitution in the quest for imperial control, an integral part of the process of transformation would have to entail a process whereby both the epistemology and the philosophy of those that were silenced before are neither ignored nor regarded as a casual footnote in the construction of the education curriculum of South Africa (Ramose, 2004: 1). For this process to occur, it would be imperative to transform Euro-American cultural hegemony through a process of Africanisation. For Meerkotter and Da Costa (1994: 25) the first step in this process entails a spatial perspective within which South Africa is placed where it belongs both geographically and historically – as an independent part of Africa and not as a Euro-American neo-colonial appendage or cultural extension.

This process does not, however, imply a total rejection of everything Euro-American, but rather constitutes a call for South African education to make Africa the focal point from which all other cultures are studied. For (all South) Africans this entails a regaining of their cultural and societal values in order to experience themselves as human beings with human dignity. It is within this context that *ubuntu* is currently actively revitalised as an obvious and potent means to escape their loss of identity, to let

them regain their cultural and societal values, and to let them experience themselves as human beings with dignity (Venter, 2004: 152).

Education transformation in South Africa

Globally, education systems are currently undergoing change. According to Rambuda and Fraser (2004: 10), one such change is the shift from a philosophy that focuses mainly on the transmission of information to an understanding that supports the constructivist paradigm of teaching and learning. In South Africa this shift is evidenced by an outcomes-based education (OBE) approach introduced after the birth of the country's democracy on 27 April 1994. The intention of this new approach is to replace the existing, pedagogical style of rote learning with more learner-centred pedagogical approaches. Mason (1999: 137) argues that OBE is also intended to redress the legacy of apartheid by promoting the development of skills to prepare all learners for participation in the local democracy as well as in the increasingly competitive global economy.

The introduction of an outcomes-based approach to education in South Africa brought about major changes to the traditional way in which teachers approached the process of teaching. Probably one of the most challenging of these changes has been addressing the shortcomings in the assessment process that was in force prior to the introduction of an outcomes-based approach to education in South Africa, which is commonly referred to as Curriculum 2005. The most important of these shortcomings as identified in the national Education Act (Act No. 27 of 1996) were the complex rules and regulations for subject groupings and combinations, the lack of transparency and accountability, the inappropriate use of tests and examinations and the absence of meaningful feedback and support for learners who might have experienced learning difficulties.

Addressing these shortcomings was placed very high on the agenda of the curriculum transformation process that started in the 1990s. The new curriculum was to be grounded theoretically within a social constructivist conceptual framework. Shepard (2000: 6) identified the following as the most important elements of this conceptual framework:

- In contrast to past, mechanistic theories of knowledge acquisition, learning is now understood as an active process of mental construction and sense making;
- Existing knowledge structures and beliefs work to enable or impede new learning;
- Intelligent thought involves self-monitoring and awareness about when and how to use skills;
- Expertise develops in a field of study as a principled and coherent way of thinking and representing problems, not just as an accumulation of information;
- What is taken into the mind is socially and culturally determined;
- Fixed, largely hereditarian theories of intelligence have been replaced with a new understanding that cognitive abilities are developed through socially supported interactions;
- Development and learning are primarily social processes;
- School learning should be authentic and connected to the world outside of school to develop the ability to use knowledge in real-world settings; and
- Classroom expectations and social norms should foster the development of important dispositions, such as students' willingness to persist in trying to solve difficult problems.

Together with these elements came the slogan which is now quite familiar among South African teachers, namely, 'All students can learn'. According to Shepard (2000: 7), this slogan is intended to refute past beliefs that only an elite group of students could master challenging subject matter. Implied in this is a commitment to an equal opportunity for learners from diverse backgrounds and the provision of genuine opportunities for high-quality instruction and ways into academic curricula that are consistent with language and interaction patterns of home and community.

The principles underpinning OBE clearly reflect the elements mentioned above; they include:

- The purpose of assessment should always be explicit;
- The criteria-referenced approach will be used;
- Assessment must be authentic, continuous, multi-dimensional, varied and balanced;

- Assessment is an on-going, integral part of the learning process;
- It must be accurate, objective, valid, fair, manageable and time efficient;
- Assessment takes many forms, gathers information from several contexts, and uses a variety of methods according to what is being assessed and the needs of the learners;
- The methods and techniques used must be appropriate to the knowledge, skills, or attitudes to be assessed as well as to the age and developmental level of the learner;
- It must be free of bias and sensitive to gender, race, cultural background and abilities;
- Assessment results must be communicated clearly, accurately, timeously and meaningfully;
- Progression should be linked to the achievement of the specific outcomes and should not be rigidly time bound; and
- Evidence of progress in achieving outcomes shall be used to identify areas where learners need support and remedial intervention (Government Gazette, 1998: 10).

This is, however, no guarantee that teachers have made the mindshift needed to make what is captured in the slogan real. There are still serious shortcomings in the implementation of the above principles. Malcolm, Long and Chamberlain (1999: 38) highlight this reality when they state: 'We have to tap into the different backgrounds of our learners as part of working with their shared interests. Research is clear about the importance of learners' existing knowledge. Their inputs to learning are as important as ours. Their knowledge, problem-solving strategies, personalities, purposes and interests guide their response to our teaching. We need to acknowledge and build from that truth.'

They then refer to the way in which the above understanding of learners and learning affects assessment:

- We have to link our teaching and assessment to the backgrounds, cultures and interests of each individual; and

- We have to link to all individuals equally if we are not to discriminate in favour of some, against others.

'Most of us do these things poorly. Especially in whole-class teaching, we often plan with a view to the momentum of the lesson, not the needs of individuals. Drawing from textbooks, we choose examples and extracts from Western cultures, middle-class experiences and professional careers rather than, for example, rural life, working-class or minority cultures. To keep our lessons moving we direct our questions to children whose experiences we think are likely to help, and/or those who can express their ideas well. Overall we fall short on both the criteria above: we only link to the backgrounds of some learners and we favour/value some life experiences over others' (Malcolm, Long & Chamberlain, 1999: 38). We have to link our teaching and assessment to the backgrounds, cultures and interests of each individual learner.

The nature and effectiveness of the education system in South Africa depend on the functional co-operation of all its different sectors and components. This does not only include the management and implementation of curricula, of which assessment is a key component, but also the way in which the aspirations and value systems of communities are integrated into the general functioning of educational institutions. In order therefore to explore, understand and explain assessment as part of the education system, it is important to take into account the value system which is normally associated with, if not based upon, the different stakeholders' traditional belief system. According to Ovens (2003: 67), tradition, culture and beliefs definitely influence the thoughts and actions of people in the African context greatly. This is also the case in South Africa. The only difference is that over time the value and belief systems of the majority of South Africans have been marginalised to the extent that they never played a meaningful role in the way the education system functioned.

The education debate in South Africa, especially after 1994, is characterised by various approaches, ideas and viewpoints about what should be part of a uniquely South African education system (Venter, 2004: 155). What have been, and are now being, implemented are 'Western' curricula, which do not enjoy the acceptance of all South African peoples in terms of philosophy, approach and methods. The fact that much of the educational transformation is simply experienced as the implementation of

education systems emanating from Western developed countries has implications for the accompanying changes in teaching, learning and assessment practices.

The current education system, and more specifically assessment theories and discourse, are based mostly on a Western perspective, explaining assessment from a Western and First World perspective. This has a limiting effect for role players in gaining an understanding of the role and nature of assessment in South African educational institutions. Western theories, according to Ovens (2003: 68), are scientific, analytical and reductionistic, whereas an African approach is based upon subjective, direct experience. Furthermore, Western theories serve to analyse, predict and control human behaviour, while the African approach strives towards intuition and integration. Understanding both these perspectives and ensuring that they become part of the educational frame of reference are crucial as South Africans engage with assessment issues.

In the new political order in South Africa, which promises a democracy with a government chosen by the people for the people, the reality is that the voices of the masses that were silenced in the past are still silent. Venter (2003: 158) argues that failure to appreciate the role of culture has led to poor performance in African countries, including South Africa. 'The search for educational identity in (South) Africa, therefore, requires of all participants in the discourse to seek consensus and to avoid radicalism and feelings of cultural and historical superiority. All social, cultural, language, ethnic, racial and religious groups in (South) Africa should be allowed to contribute to the national and educational identity in order for it to be shared and upheld by all' (Viljoen & Van der Walt, 2003: 14). This is the challenge facing educational transformation in general and assessment in particular in South Africa. The silenced voices should be activated and listened to again. It is their values and ways of thinking that should be brought back into the South African discourse on education. A South African philosophy should be developed with the aim of contextualising and supporting what is happening in terms of curriculum implementation and transformation, including assessment.

The one aspect of education transformation that has not been dealt with thus far is the agency of teachers and departmental officials with regard to OBE implementation. It is

not only the intended consequences, but even more importantly the unintended consequences of their actions, that will enhance or limit the possibility of establishing good and effective assessment practice which is embedded in the value system and way of thinking of South Africans. According to Mbigi (1997: 11), the prompt application of *ubuntu* in transitional administrations could lead to effective people alignment – one of the critical strategic processes. The following is an adaptation of his work in terms of the business enterprise to the educational arena. The following are, in the spirit of *ubuntu*, important requirements for ensuring effective teaching in the transitional period:

- uplifting assessment skills through vertical and horizontal multi-skilling;
- shifting attitudes through holistic development education (capacity building) and through linkages to national development strategies;
- shifting mind-sets by gut issues which impact in the classroom through assessment (education) literacy as well as focusing on the social determinants of high performance; and
- shifting human behaviour through best practices as many teachers fail to be efficient assessors, not because of the complexity of knowledge required, but because they all require a fundamental change in human attitudes and human behaviour which is difficult to bring about.

All these are important as South African educationists lack a collective educational purpose due to too great a tolerance of different viewpoints and actions which are embedded in Eurocentric value systems and carry with them traits of the legacy of the apartheid era that work against nation building as it strives to ensure educational excellence.

The ideal would be for all South African teachers to subscribe to the principles of *ubuntu*. The kind of teacher needed in post-apartheid education schools is described as follows: 'Teachers at all levels are key contributors to the transformation of education in South Africa. Teachers have a particularly important role to play. The National Curriculum Statement envisions teachers who are qualified, competent, dedicated and caring and who will be able to fulfil the various roles outlined in the Norms and Standards for Educators of 2000' (Government Gazette, No. 20844). These see teachers

as mediators of learning, interpreters and designers of Learning Programmes and materials, leaders, administrators and managers, scholars, researchers and lifelong learners, community members, citizens and pastors, assessors and learning area/phase specialists.

Assessment and *Ubuntu*

It is clear that after the first decade of far-reaching educational transformation and curriculum change in South Africa, assessment is one of the complex focus areas in the process. Reddy (2004: 32) describes this as follows: 'Currently in South Africa, reform in assessment has been accompanied by widespread political and social changes, which have impacted on education, initially with the introduction of the interim syllabi after the 1994 elections and more recently with the introduction of Curriculum 2005 and an outcomes-based approach to education. ... no previous period can match up to the breadth and intensity of activity on the assessment front that is being experienced presently.'

Curriculum 2005 (C2005), which was supposed to serve as a vehicle to drive OBE in South African schools, has been revised four times since its initial implementation in 1995. Assessment proved to be one of the fundamental problem areas in attempts to implement C2005, mainly because teachers were unable to assess effectively, that is, in a manner that reflects OBE practice at their schools (Coetzer, 2001: 78).

Assessment is far too often seen as a separate entity to teaching and learning. Joffe (in Taylor, 1993: 230) states that assessment is an integral part of the education process and is strongly bound up with curriculum. It is not only central to teaching and learning, but it is an integral necessity for the optimal functioning of the whole education system. It might therefore be crucial to redefine assessment as a teaching and learning tool and not as an interruption in the educational process used to determine whether a learner passes or fails. To fulfil this role, information is needed to inform both teaching and learning. Tanner and Jones (2003: 2) capture the nature of assessment as the catalyst in the educational process by stating that: 'Assessment is about information. Assessment is about communication. Assessment is about learning and teaching.' The effective use of the assessment information is important if the instructional leader in the school, subject,

learning area or class context wishes to create a climate conducive to effective curriculum development.

Jones and Bray, as cited by Reddy (2004: 33), view assessment as an all-embracing term, which covers any of the situations in which some aspects of a learner's education is, in some sense, measured, whether this measurement is by a teacher, an examiner or indeed the learner him- or herself. Assessment captures much more than the narrow meaning of assessing the learners' ability in order to make a clinical judgment about it to declare failure or success. Heron (1981) develops the concept further by calling assessment the process of 'redistribution of power' when it becomes not just something that is 'done to' learners, but also 'done with' learners. The question that comes to mind is: as teachers work with learners, what values and ways of thinking of South African society can be called upon to be the frame of reference and ethos behind what they do and how they do it in terms of assessment in ensuring a better education for all South Africans?

Battle (1996: 99) presents the concept *ubuntu* as a concept that originates from the Xhosa expression: *Umntu ngumuntu ngabantu*. Not an easily translatable Xhosa concept, generally, this proverbial expression means that each individual's humanity is ideally expressed in relationship with others and, in turn, individuality is truly expressed. Or a person depends on other persons to be a person.' *Ubuntu* then, is to be aware of one's own being, but also of one's duties towards one's neighbour. According to Venter (2004: 156), *ubuntu* is a concrete manifestation of the interconnectedness of human beings – it is the embodiment of (South) African culture and life style. The whole education process centres around *ubuntu* as a philosophy or set of ethical principles that captures the belief system of most (South) Africans, according to which people take responsibility for other people but also accept the authority and guidance of those who have reached a higher level of knowledge and understanding in order to progress.

This captures to a large extent the context in which assessment takes place. The word 'assessment' is derived from the Latin verb *assidere* which means 'to sit beside'. It indicates a much deeper involvement of a teacher in the development and progress of the learner which includes guidance, recognition of the learner's context (physical,

emotional, intellectual, cultural, economic), reflection on one's own practice and continued support as he/she walks besides the learner on the road to achieving the expected outcomes. Teachers, in the nature of their profession, are in a special relationship with their learners and the community they serve. This implies, however, more than just being connected to other people because of the job they do. It is about the commitment of the teachers 'to sit beside' the learner and in that way also 'to sit beside' the community/society. The sincerity and level of commitment expresses the individual teacher's humanity in relationship to all those he/she serves. According to Letseka (in Venter, 2004: 156), this humanness (*botho* in Sotho and *ubuntu* in Nguni), which refers to communally accepted and desirable ethical (educational) standards, is acquired by a teacher throughout his/her life. This emphasises the pivotal role that education plays in conscience forming (Mkabela & Luthuli, 1997: 4) and the structuration (Giddens, 1984: 25) of the values and ways of thinking embedded in *ubuntu*.

Assessment in the context of the South African outcomes-based education system addresses development and growth through the achievement of outcomes (Kotze, 2004: 48). These outcomes can be classified in two groups:

- a) The critical outcomes - which were derived from the Constitution - indicate the critical but generic competencies which the whole education system should work towards in all learners. The critical outcomes address a number of the traits and values embedded in *ubuntu* like group solidarity, conformity, compassion, respect, human dignity and collective unity (Mbigi & Maree, 1995: 5); and
- b) The learning outcomes specify the particular subject/learning area competencies that the learner must demonstrate at the appropriate level(s).

According to Killen (2004: 67), the key to working successfully in the outcomes-based education system is to systematically and consistently apply the fundamental principles espoused by Spady (1994):

- clarity of focus: asking of teachers to determine the specific knowledge and understanding, skills, attitudes and values that learners should gain as they engage with the curriculum;

- designing down: requiring teachers to derive short-term outcomes from the significant long-term outcomes mentioned above and that they employ teaching strategies that are compatible with these outcomes and that assessment strategies are aligned with these outcomes;
- high expectations: that high standards are set for all learners, that teachers will teach in ways that will ensure that these standards are achieved, and that the assessment strategies enable learners to demonstrate high levels of achievement; and
- expanded opportunities: requiring teachers to give learners more than one routine chance to learn and that learners have multiple opportunities to demonstrate their learning.

The Constitution, from which both the critical and learning outcomes are derived, 'expresses the nation's social values and its expectations of the roles, rights and responsibilities of citizens in a democratic South Africa. The Bill of Rights places pre-eminent value on equality, human dignity, life, and freedom and security of persons. The new curricula for schools seek to embody these values in the knowledge and skills they develop. They encourage amongst all learners an awareness and understanding of the rich diversity of cultures, beliefs and world views within which the unity of South Africa is manifested' (RSA, 2003: 8).

These two sets of outcomes form the curriculum framework. Assessment links teaching and learning as it, on the one hand, provides evidence of the learners' progress in terms of the specified outcomes, but also, on the other hand, gives the teacher information about the appropriateness of the teaching strategies used. The outcomes also form the basis of recording learner achievement and reporting to parents and all other stakeholders. Furthermore, by assessing in terms of the outcomes mentioned, not only knowledge, understanding and skills are developed, but also the principles of *ubuntu* become part of the education (values and thinking) of learners.

The dominance of summative assessment (assessment of learning) in South African schools, especially in terms of the matriculation examination, poses a major problem. Teachers need to be convinced of the inherent benefits of formative assessment

(assessment for learning) used not only to support learners in learning about the learning area/subject, but also to support teachers in becoming more effective in their teaching. The continuous monitoring and assessment of different aspects of learning, through various authentic means in a range of contexts, should therefore be a priority. Since the goal of formative assessment is to gain an understanding of what students know (and do not know), and what they can do (and cannot do) in order to make responsive changes in teaching and learning, techniques such as teacher observation, questioning and classroom discussion have an important place alongside the analysis of tests and homework (Boston, 2002: 2).

The nature and purposes of assessment should not be approached in a technicist way. Assessment, as the key to focused development and growth of the learner, demands an involved relationship. It is not only about making a judgement, but rather about being with the learner every step of the way and being prepared to recognise learning difficulties in a respectful and dignified way and through genuine sharing of acquired knowledge and skills guiding the learner with compassion to the achievement of the intended outcomes. The core values of *ubuntu*, as described by Broodryk (2002: 32), provide a supportive basis or frame of reference from which both teacher and learner can engage in the assessment process.

The first two values, humanness (warmth, tolerance, understanding, peace, humanity) and caring (empathy, sympathy, helpfulness, and friendliness), capture the spirit in which assessment should be conducted. Teaching learners with the hope that they will learn has never been an easy task. Humanness towards and caring unconditionally for the learner constitute the foundation for effective teaching and learning. Learners experience assessment as positive only when they are sure that the teacher who guides the learning process is a humane and caring person who is fully aware of their fears and the stumbling blocks.

Assessment demands discipline not only from the learner, but also from the teacher, as it involves the core value of respect (dignity, obedience, order). Accepting the dignity and integrity of all parties involved, it stands to reason that the assessment process should be transparent. It requires of both the assessor and the assessee to be clear about what is assessed and what is expected of the learner in order to demonstrate

achievement. If we accept that all learners have the ability to learn, but that they learn at different paces, then it is important that the process of preparing the learner is characterised by inclusiveness and respectful adherence to guidance by the learner. Teachers who have respect for themselves and their learners will use assessment information to enhance the quality of both teaching and learning. This requires of teachers to constantly reflect on their own practice in order to ensure that they use the most effective teaching and support strategies for all their learners.

The last two, i.e. sharing (giving unconditionally, redistribution) and compassion (love, cohesion, informality, forgiving, spontaneity), are seen in the African worldview as the characteristics of the ideal person. These are qualities that all teachers should have and are necessary to ensure quality teaching and learning through assessment. Possessing these characteristics reflects the social commitment of a teacher to share with others what he/she has gained through the efforts of others. Crucial in the process of assessment is the sharing of information, not only with parents or other stakeholders, but particularly with the learner. Research in schools has identified feedback (and feedforward, which is informing learners of the next steps to be taken in learning) as the variable that has the greatest impact on students' achievement – more than any other aspect of teacher behaviour, or curriculum design (Gibbs, 2003: 126). Feedback, given as part of formative assessment, helps learners to become aware of any gaps between their desired outcome and their current knowledge, understanding or skill, and guides them through actions necessary to obtain the outcome. While feedback generally originates from a teacher, learners can also play an important role in formative assessment through self-assessment (Boston, 2002: 2).

It is clear from the arguments above that *ubuntu* as a philosophy or set of ethical principles provides an effective frame of reference in teaching, learning and assessment for both teacher and learner.

Conclusion

There is a lot of evidence pointing to more challenges, not only with regard to the implementation of the outcomes-based education curricula in South Africa, but also to resistance from teachers and parents to changes in education, especially as far as

assessment is concerned. Educationists are aware of the problems and infuse world trends like authentic assessment, and the notions of assessment for learning and assessment of learning. However, the latter are quite difficult to implement and to sustain in South African education institutions. Assessment, being an integral part of education, can in no way be dislocated from the ideas about education transformation as articulated and should be relevant to and functional in this process as well.

Wilhelm Crous, in his foreword to Lovemore Mbigi's *Ubuntu: The African Dream in Management*, captures this problem and its possible solution so aptly when he notes that 'Worse still, there seems to be an inability to really unlock the latent potential of our human resources. It is my belief that we focus much too much on Eurocentric (educational) management philosophies and principles. There has to be a greater understanding and appreciation of our African cultural heritage – and the transfer of that knowledge to the workplace' (Mbigi, 1997: ix).

Assessment, as an integral part of teaching and learning in South African educational institutions, calls for a sensitivity to the local context, although its fundamental principles and tenets are universal. It is clear from the arguments in this essay that recognising the 'characteristics' of *ubuntu* as the voice, values and thinking of the majority of South Africans will in itself only contribute in a minor way towards enhancing education (teaching and learning through assessment). It is in the integration of the values and thinking embedded in *ubuntu* into the difficult process of education transformation and in using assessment to ensure quality education that its value lies – not only for the learner and the teacher, but also for the education bureaucracy and South African society as a whole.

AFRICAN(A) PHILOSOPHY OF EDUCATION: RECONSTRUCTIONS AND DECONSTRUCTIONS

Editor: Yusef Waghid

Associate Editor: Berte van Wyk

Contributing Editors: Faried Adams & Ivan November

Department of Education Policy Studies
DEPS
Stellenbosch University
Private Bag X1
Matieland
7602

April 2005

©DEPS

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without permission of the copyright holder.

ISBN: 0-620-34077-0

Published by the Department of Education Policy Studies, Stellenbosch University.

Language editing by Edwin Hees
Technical editing by Berte van Wyk, Faried Adams and Ivan November
Research assistance provided by Samantha Marais
Production supervision by Nelda Titus of Stellenbosch University Printers
Cover design by Ilse Roelofse
Layout by Amanda Greybe